General Disclaimer

One or more of the Following Statements may affect this Document

- This document has been reproduced from the best copy furnished by the organizational source. It is being released in the interest of making available as much information as possible.

- This document may contain data, which exceeds the sheet parameters. It was furnished in this condition by the organizational source and is the best copy available.

- This document may contain tone-on-tone or color graphs, charts and/or pictures, which have been reproduced in black and white.

- This document is paginated as submitted by the original source.

- Portions of this document are not fully legible due to the historical nature of some of the material. However, it is the best reproduction available from the original submission.

NASA TECHNICAL MEMORANDUM NASA TM-75392

THE SALYUT-6: THE HOPES OF TERRESTRIAL SCIENCE

B. Gerasimov

Translation of "Salyut-6: Nadezhda zemnoy nauki", Sovetskaya Rossiya, Issue 200, August 31, 1978, p. 3.

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
WASHINGTON, D.C. 20546 MARCH 1979

THE SALYUT-6: THE HOPES OF TERRESTRIAL SCIENCE

B. Gerasimov
Special Correspondent of Sovetskaya Rossiya reports from the Flight Control Center

Almost every morning, Earth asks its stellar quartet: how /3* was the night, how did you sleep? Our friends answers are that everything is simply splendid. And then someone adds in a whisper. they have slept five space nights and even more days . . . This is actually so because during the crew rest time the station has completed a trip around the world.

But nevertheless, order is strictly maintained on board and it is set up according to the time of the Control Center near Moscow. At 2300, the "all clear" is given. The crew screens the lamps and turns out overhead light. Semi-darkness reigns in the rooms of the space express, rushing over the planet at a speed of 27.8 thousand kilometers per hour. Earth protects the quiet of our messengers who are giving only "quiet conversations" from the station on the telemetry channel.

But then the next working day begins in orbit. The signal of the space alarm clock (a special buzzer) often sounds formally; the cosmonauts are already awake having begun their physical exercise. Sigmund Jen carefully turns the pedals of the veloergometer discussing with his commander how he felt in the night fastened to the ceiling of the space station. Moreover, the German cosmonaut during the day loves to float in the Salyut.

Work on board is discussed, it goes forward ahead of schedule so that often the flight commander requests that the

---

*Numbers in the margin indicate pagination in the foreign text.

crew not forget to eat and rest.

Already a considerable amount has been accomplished. For example, the cosmonauts have worked fairly well with the two stellar furnaces, the Splav and Kristall, which as we know were recently delivered on board using our Progress spacecraft. At this time, many scientific research organizations of the German Democratic Rupublic are interested in the results of the new melts. For example, scientists and designers at the Karl Zeiss Jena National Enterprise are interested. They justifiably propose that weightlessness itself makes it possible to solve production problems for superhigh quality optical glass which often cannot be obtained in terrestrial conditions.

A whole series of experiments is clarifying the important questions of space biology. The international crew has a fairly large number of new devices on board and they are "populated" with very different organisms. The cosmonauts follow their development in weightlessness conditions and report to Earth on the first results obtained. It is still difficult to judge the results of these orbital tests. The main conclusions the scientists of the USSR and GDR will undoubtedly be made upon completion of the flight when biological materials which have completed the trip will be delivered to the laboratories. Specialists are comparing them with similar organisms which remained on Earth as the control. The harvest from the stellar biological "garden" will be very interesting. New data, obviously, makes it possible to clarify even more questions involving the characteristics of the effect of weightlessness and other factors of space flight on live organisms.

The program of joint studies in orbit has been recorded in detail by the hour and the minute. Experiment after experiment finally, and procedures which the cosmonauts carry out for technical servicing on the onboard systems and blocks are

important. This was fully justified early in the year when the station, already in orbit, was operating very intensely. The crew has occupied itself with frequently moving the "furniture" and has changed the location of the armchairs placed in the transport spacecraft. As has already been reported, the international crew is returning soon to Earth on the Soyuz-29 having left the long-term inhabitants of space Kovalenok and Ivanchenkov its still "fresh" stellar craft.

Many cosmonauts have worked brilliantly and repeatedly with the MKF-6M photographic camera. Different territories of the Soviet Union and other socialist countries participating in the Interkosmos program have fallen into the field of vision of its all-seeing lenses. Hundreds of photographs have been taken and delivered to scientific and research organizations. The space photos contain a good deal of new information which is of great interest for a whole series of branches of the national economy.

Yesterday, photographing Earth using the MKF-6M was continued. With great enthusiasm, Sigmund Jen photographed a number of regions; this unique equipment developed by scientists of the USSR and GDR was manufactured in his Motherland. The international crew thought highly of the photographic camera and praised its inventors--the workers and engineers of the Karl Zeiss Jena National Enterprise.

"We are very pleased," noted Secretary General of the Academy of Sciences of the GDR, Academician K. Grote, "that citizens of our country are participating in these promising studies. The photographs from space which have already been made earlier in the Raduga experiment have been used for actual practical purposes. In particular, in geology. An analysis of the information "from above" has made it possible for specialists to discover in the northern regions of the GDR, a number of geological

structures which are promising for discovering mineral resources. In particular, predictions have been made on a new deposit of natural gas.